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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/624,360
Filing Date: July 22, 2003
Appellant(s): MANNING ET AL.

Dennis Thomte
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07 April 2006 appealing from the Office action mailed 25 November 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,309,595	SALECKER ET AL.	05-1994
6,448,732	BLOCK	09-2002
4,218,802	BABB ET AL.	08-1980

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salecker 5,309,595 (hereinafter Salecker) in view of Block 6,448,732 (hereinafter Block).

With respect to claim 1, the patent to Salecker teaches a sewer and drain cleaner 10 (Fig. 1) comprising, a frame 14, a rotatable drum 22 (col. 3, lines 35-38) mounted on said frame which has a flexible plumber's snake defined by coiled cable 16 associated therewith, a motor 18 (Figs. 1, 2 and 5) mounted on said frame, said motor having a driven shaft (not explicitly recited but still taught in order to drive a belt 20) operatively connected to said drum for rotating the same (col. 3, lines 34-36), and a control 24 connected to said motor for controlling the operation thereof.

The patent to Salecker discloses all of the recited subject matter with the exception of a battery-powered cleaner device comprising a motor that is DC (direct current) and a rechargeable battery mounted on said frame for powering the DC motor. The patent to Block teaches a cleaner device which comprises a motor 40 (Figs. 1 and 4) which can operate in either of two modes, namely, via power supplied from an onboard (and thus on the cleaner itself) rechargeable battery 50 (i.e., from direct current provided by the battery and thus a DC motor) or from AC (alternating current) from a fixed AC power outlet (col. 1, lines12-15, col. 3, lines 19-21, col. 5, lines 18-20 and 28-33). It would have been obvious to one of ordinary skill in the art to have provided Salecker's cleaner with a motor that receives power from direct current (and thus a DC motor) provided by an onboard rechargeable battery as taught by Block to aid in easing portability of the entire cleaner device and enabling the battery to be recharged to extend its useful life. Block's teaching simply gives users the choice of **either** power source mode. It is well known in general in the electrical arts to use **either** AC from a fixed power source with a cord/plug **or** DC with a rechargeable battery to power an electric motor for consumer or household products in a variety of arts. Basically, AC or DC are the **only two power sources** that one of ordinary skill in the art can choose from. They are **well known equivalent alternatives** of each other and well within the purview of one of ordinary skill to select and readily substitute between them. The secondary reference to Block has been combined with Salecker and is **just merely exemplary** to teach the **general concept of the well-known conventionality** in the

electrical cleaning art to use **either an AC or DC power source**. Block is **merely just one example of many** of this well-known concept in the cleaning art.

As for claim 2, Salecker teaches that the motor is operatively connected to the drum by a belt drive 20 (Figs. 1 and 2., col. 3, lines 34-36).

As for claim 3 reciting that the motor is operatively connected to the drum by a gear drive, one skilled in the art would find it obvious to use either a belt or gear arrangement between the motor and drum since they are deemed functional alternative equivalents of each other for driving the drum and each drive is old and well known.

As for claim 4, the battery 50 comprises a battery pack (col. 4, lines 15-17; Figs. 1 and 4).

As for claim 5, the recitation of a "high speed, high torque" motor is deemed merely a relative limitation absent any further specific speed or torque value claimed. In any case, values for motor speed and/or torque are deemed obvious since through an optimization process, one skilled in the art would find it obvious to select optimum values (i.e., higher speed, higher torque) depending on the particular task which could typically include large obstructions of tree branches, leaves and other debris stuck in the sewer or drain. Such larger obstructions would at least be suggestive to one skilled in the art for higher speed and higher torque for completing the task.

As for claim 6, the modified Salecker cleaner is deemed to include a "low" voltage DC motor, or at least suggestive thereof, depending on power requirements or choice of battery (see Block, col. 1, line 54 to col. 2, line 67 and col. 4, lines 63-67). The phrase "low" voltage is deemed merely a relative expression.

As for claim 7, the modified Salecker cleaner teaches a control device 61 (Fig. 4) which includes a motor (col. 5, lines 3-5) and "voltage" control (col. 1 , lines 59-64 and col. 5, lines 7-17).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salecker in view of Block as applied to claim 1 above, and further in view of Babb 4,218,802 (hereinafter Babb).

As for claim 8 reciting a specific range of torque and shaft speed for rotating the sewer and drain cleaner drum, Salecker's drum already rotates at a specific torque and shaft speed (col. 2, lines 46-52 and col. 3, lines 34-51) but is simply silent as to any specific torque and shaft speed values. In this case, such silence is not indicative of nonobviousness since the patent to Babb also teaches a sewer and drain cleaner (Fig. 1, col. 1 , lines 5-27) wherein a motor 3 has sufficient torque and shaft speed to rotate its canister or drum 5 between 0 and 500 rpm (col. 3, lines 40-43) which meets the claimed range of "approximately 230-350 rpm". It would have been obvious to one of ordinary skill in the art to have provided the modified Salecker device with a motor that has sufficient torque and shaft speed to rotate the drum at approximately 230-350 rpm as taught by Babb for ensuring a clearing out of drain or sewer obstructions. In any case, selection of an optimum or workable specific value or range of values for torque and shaft speed involves routine skill in the art to ensure clearing out of larger sewer or drain obstructions.

(10) Response to Argument

With respect to independent claim 1, appellants primarily argue that the combination of the primary reference to Salecker and the secondary reference to Block under 35 U.S.C. § 103(a) is improper since Block is not analogous art. Basically, appellant's invention defined by claim 1 recites a sewer and drain cleaner comprising a motor that is DC (direct current) and a rechargeable battery mounted on the frame for powering the DC motor. Appellants agree with the examiner's assessment of Salecker since Salecker teaches a typical sewer and drain cleaner arrangement (see Appeal Brief at p. 4, lines 21-22). Appellants admit that the secondary reference to Block is a "cleaner" device but assert that it is a portable suction cleaner of the vacuum cleaner type and that there is a vast difference between vacuum cleaners and sewer and drain cleaners. Appellants argue that vacuum cleaners remove materials from rugs by suction while sewer and drain cleaners of the type recited loosen roots and obstructions within pipes through the use of a flexible plumber's snake which is rotated in the clogged pipes. Appellants argue that it is not believed that a person working in the sewer and drain cleaning art would look to the vacuum cleaner art such as Block. Appellants also argue that Block is non-analogous since the classifications of Block and Salecker are completely different as were the fields of search therein. Appellants further assert that the examiner has failed to point out any suggestion or motivation to modify the Salecker reference and that the examiner has improperly applied hindsight in the 35 U.S.C. § 103(a) rejection of claim 1.

In response to appellants' arguments, it is the position of the examiner that the combined teachings of Salecker and Block 35 U.S.C. § 103(a) have been properly applied with respect to independent claim 1. At the outset, it is well known in general in the electrical arts to use **either** AC from a fixed power source with a cord/plug **or** DC with a rechargeable battery to power an electric motor for consumer or household products in a variety of arts. Basically, AC or DC are the **only two power sources** that one of ordinary skill in the art can choose from. They are **well known equivalent alternatives** of each other and well within the purview of one of ordinary skill to select and readily substitute between them. The examiner has not taken any specific vacuum suction cleaning feature of Block and incorporated it within the sewer and drain structure of Salecker. The examiner has also not modified the function itself of Salecker's sewer and drain cleaner. The secondary reference to Block has been combined with Salecker and is **just merely exemplary** to teach the **general concept of the well-known conventionality** in the electrical cleaning art to use **either an AC or DC power source**. Block is **merely just one example of many** of this well-known concept in the electrical art. Substitution of equivalents requires no express motivation. *In re Fount*, 213 USPQ 532 (CCPA 1982); *In re Siebentritt,* 152 USPQ 618 (CCPA 1967).

Appellants disclose that a DC battery-powered motor eliminates the need for extension cords and eliminates the electrocution hazard normally associated with electrically driven sewer and drain cleaners (see specification at p. 2, lines 11-14 and p. 4, lines 10-13). However, whether AC or DC powered, it is the examiner's position that

either electrical arrangement will be associated with a shock and electrocution hazard and such is widely recognized and well known. **Any** DC motor and rechargeable battery arrangement would still include an attendant shock and electrocution hazard. One could still get electrocuted with appellants' own invention which includes a DC (direct current) and rechargeable battery arrangement, especially near water. **No unexpected results** flow from appellants' disclosure that a **DC battery-powered motor** eliminates the electrocution hazard normally associated with electrically driven sewer and drain cleaners or that the use of extension cords is eliminated. Appellants' DC battery-powered arrangement does not function any differently from well known and common, similar DC battery-powered arrangements that already exist. These results are **merely expected** and flow naturally from well-known concepts for typical consumer products in a variety of electrical arts. There is **nothing unexpected or unobvious** about substituting the well-known equivalent alternative of a DC battery-powered motor for an AC motor arrangement. The fact that an extension cord would be eliminated in a DC motor arrangement is an inherent feature which flows naturally when using a DC battery-powered arrangement for easing portability. Appellant has **not invented any particular or specific** arrangement for connecting or wiring the claimed DC battery-powered motor to make the **sewer and drain cleaner** function in any special or unique manner, or for that matter, **disclosed any special features** associated with the claimed DC battery-powered configuration from that which is already well known. Appellant has merely broadly disclosed and claimed a **common** DC battery-powered arrangement for

an electrical consumer product which is a well-known equivalent alternative power source for AC and which merely produces **expected results**.

It is also the position of the examiner that both Salecker and Block are analogous art. Each reference has a U.S. patent classification in class 15 and can be found therein. Salecker is classified in class 15, subclasses 104.33 and 257.01 and Block is classified in class 15, subclasses 339 and DIG. 1. Therefore, appellants' statement and argument that "the classifications of Block and Salecker are completely different as were the fields of search" is unpersuasive. There is no requirement that subclass classification and field of search must be the same for art to be analogous. Both are classified in the same class 15. One skilled in the portable, wheeled sewer and drain cleaning art should not narrow down his/her search to solely search sewer and drain cleaning devices, particularly when the alleged inventive feature is broadly drawn to the power source itself (i.e., DC instead of AC). Taking Salecker and Block, as a whole, both could well be operated in similar environments, e.g., poolside areas, patio decks, backyards etc. Those skilled in the art should be concerned and interested in searching other related arts that also include wheeled, portable electric driven cleaner devices (e.g., vacuum or scrubbing wall/floor cleaners) that have similar power requirements. They are analogous because the type of power required by Salecker is basically similar to the type of power required by Block and both are cleaning devices. In any case, both Salecker and Block teach portable electrically driven devices with generally similar power requirements that are both in the cleaning art. For these reasons, Salecker and Block are not so "foreign" from each other to be deemed non-analogous.

In response to appellants' argument that the examiner has failed to point out any suggestion or motivation to modify the Salecker reference and that the examiner has improperly applied hindsight, the suggestion or motivation just comes from the fact that AC or DC arrangements are the **only two power sources** that one skilled in the art can choose from. Both AC and DC power sources offer their own advantages and disadvantages for each. Clearly, one versed in the art would readily recognize picking either arrangement depends on their specific advantages. For example, one may readily have available 110V household power available outside due to a particular location (e.g., poolside or backyard) for which the cleaner is to be utilized. Similarly, one skilled in the art who is not so concerned with the high cost and expense of replacing and purchasing a rechargeable battery if it needs replacement or recharging for a DC motor could well choose a DC battery-powered arrangement over AC. Additionally, a DC battery-powered arrangement readily enables the cleaner device to be portable and transport ready, **whatever the specific type of cleaner device it is**. In response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Again, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining

references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the ad. *In re McLaughlfn*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA) 1969. To argue that one skilled in the sewer and drain cleaner art would never consider modifying Salecker such that it can run by a DC battery-powered arrangement instead of by AC with a cord is unpersuasive, particularly in view of the fact that the DC motor with rechargeable battery arrangement is such a well known and conventional arrangement in the electrical arts for making devices portable.

Also, no secondary considerations have been provided by appellant why Salecker and Block is not an obvious combination or that there are some **unexpected** results which emerge from a well known power source (i.e., a DC motor) in a well known cleaning device (i.e., sewer and drain cleaner).

With respect to claim 2, Salecker already teaches that the motor is operatively connected to the drum by a belt drive 20 (Figs. 1 and 2., col. 3, lines 34-36). Appellants' arguments for claim 2 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

As for claim 3 reciting that the DC motor is operatively connected to the drum by a gear drive, one skilled in the art would find it obvious to use either a belt or gear

arrangement between the motor and drum since they are practically alternative equivalents of each other for driving the drum and each drive is old and well known in the art. Appellants' arguments for claim 3 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

As for appellants' arguments for claim 4, the battery 50 comprises a battery pack (col. 4, lines 15-17; Figs. 1 and 4). Appellants' arguments for claim 4 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

With respect to claim 5, one of ordinary skill in the art would decide to use a high speed and high torque motor depending on the end result desired (e.g., efficiency). No unexpected results flow from using a high speed, high torque motor, especially when the cleaning device itself must efficiently remove stubborn roots and obstructions from a sewer or drain. Such a high speed and high torque requirement is deemed typical of a DC battery-powered motor, whether in a powered sewer and drain cleaner or similarly powered vacuum suction cleaner. No unexpected results have been shown. Appellants' arguments for claim 5 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

As for claim 6, the modified Salecker cleaner is deemed include a "low" voltage DC motor, or at least suggestive thereof, depending on power requirements or choice of battery (see Block, col. 1, line 54 to col. 2, line 67 and col. 4, lines 63-67). The phrase "low" voltage is deemed merely a relative expression. Such a low voltage requirement is deemed typical of a DC battery-powered motor, whether in a powered sewer and drain cleaner or similarly powered vacuum suction cleaner. No unexpected results have been shown. Appellants' arguments for claim 6 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

As for claim 7, the modified Salecker cleaner teaches a control device 61 (Fig. 4) which includes a motor (col. 5, lines 3-5) and "voltage" control (col. 1 , lines 59-64 and col. 5, lines 7-17). Appellants' arguments for claim 7 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

As for claim 8 reciting a specific range of torque and shaft speed for rotating the sewer and drain cleaner drum, Salecker's drum already rotates at a specific torque and shaft speed (col. 2, lines 46-52 and col. 3, lines 34-51) but is simply silent as to any specific torque and shaft speed values). In this case, such silence is not indicative of nonobviousness since the patent to Babb also teaches a sewer and drain cleaner (Fig. 1, col. 1 , lines 5-27) wherein a motor 3 has sufficient torque and shaft speed to

rotate its canister or drum 5 between 0 and 500 rpm (col. 3, lines 40-43) which meets the claimed range of "approximately 230-350 rpm". It would have been obvious to one of ordinary skill in the art to have provided the modified Salecker device with a motor that has sufficient torque and shaft speed to rotate the drum at approximately 230-350 rpm as taught by Babb for ensuring a clearing out of drain or sewer obstructions. Such a specific range of 230-350 rpm is deemed typical of a DC battery-powered motor, whether in a powered sewer and drain cleaner or similarly powered vacuum suction cleaner. No unexpected results have been shown. Appellants' arguments for claim 8 are ultimately based upon appellants' assertion that Salecker and Block fail to teach or suggest that a DC motor could be used on a sewer and drain cleaner. The examiner's arguments are deemed addressed with respect to claim 1 above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Randall Chin

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